Framework Technical Working Groups

2010 Summaries

CADASTRAL

Cadastral Reference — Discussions continued regarding development of a control point database. Surveyors tuned the data model to Idaho's needs. NSDI Cat 4 CAP grant was awarded with Montana counterparts to develop a multistate control point database as a technical deliverable. The other deliverable is for a business plan to manage and sustain it (and a Regional Geodetic Control Reference Center). BLM developed a new PLSS layer "seamless" across the western states and initiated a change in internal workflows and tools to permit streamlining and encourage state partners for stewarding continuous improvements.

In 2011, BLM and the Cad Ref TWG will pilot stewardship and technical processes to realize the goal of promulgating one authoritative source for PLSS in Idaho. The Idaho Montana control point database will be available for surveyors to upload, and for anyone to browse and download, control points.

Parcels — After thorough statewide vetting and input, the Parcel Data Exchange Standard was presented to IGC Executive Committee and recommended for establishment by ITRMC. Approval is anticipated in early 2011. Gail spoke at both the Clerks and Assessor's Annual Meetings to promote TIM. The Cadastral TWG leaders participated in the Building Blocks session with state agency directors, Tax Commission executives, and elected officials. The State Tax Commission has agreed to be the Parcel Framework Steward. In the background, a dozen counties are now publishing their parcel maps through a map service hosted by IGO and managed by STC.

As the Stewardship Plan matures, work begins on a pilot project to test the standard, methods of data acquisition, and other workflow issues that will arise during integration. The results will inform the plan, business rules and any associated standard operating procedures.

Elevation

The Elevation Technical Working Group (ETWG) has focused on: a) future statewide ***LiDAR*** data collections; b) filling the gap until a statewide acquisition is available; c) partnership with FEMA for leveraging new LiDAR acquisitions; d) noting the value of incorporating possible collections with IFSAR; e) leveraging existing resources and projects within the state at all government levels. The ETWG does

not meet on a regular basis though its members met informally in several venues in 2010 (e.g., IdahoView and GIS Week in 2010). For 2011, the ETWG will: 1) continue coordination of LiDAR acquisitions through the Idaho LiDAR Consortium; 2) collaboratively develop standards for LiDAR collections in Idaho.

Geodetic Control

Geodetic Control spun off into a separate TWG after many years as part of Cadastral. There are two areas of focus: ***Height modernization*** and ***real-time network*** implemented over a densified CORS (continuously operating reference station). As part of the NSDI CAP award, a business plan will be developed to establish and maintain an RTN in multiple states. This effort builds on the five-state discussions for realizing full signal coverage all tied together with RTN software to streamline field capture and enhance accuracy.

Geoscience

Geology—The Idaho Geological Survey spearheads geologic mapping and data for Idaho. Currently less than 25% of the state has been geologically mapped at scales of 1:24,000 or better. New mapping for 2010-2011 is progressing in Boundary, Idaho, Elmore, Camas, Fremont, Madison, and Lemhi counties. New 1:24,000 mapping is eventually compiled in 30' x 60' tiles and then merged in a statewide geodatabase (available at InsideIdaho.org). Four tiles are currently being added to the statewide database: Orofino, Kooskia, Headquarters, and Sandpoint. Another seven tiles (all in southern Idaho) are ready to be added as time and funding allow.

Soils—The Natural Resources Conservation Service continues it SSURO soils mapping on schedule to be completed in 2013.

Hazards

Floods —Idaho Department of Water Resources (IDWR) houses the flood management unit. Recent progress centered on preparing for several Risk Mapping Assessment and Planning (RiskMAP) projects. RiskMAP is designed "to deliver quality data that increases public awareness and leads to action that reduces risk to lives and property" by improving flood maps. IDWR partnered with FEMA to create an online flood hazard map application (http://maps.idwr.idaho.gov/floodhazard/Map). IDWR also received funding to create a Coordinated Needs Management Strategy (CDMS) for mapping Idaho flood hazards. The Payette watershed underwent Risk MAP Discovery in December 2010. Preparations have begun for Discovery this spring in the Big Wood, Lower Boise, Lower Henrys, Teton and Upper Henrys watersheds. All stakeholder groups are being consulted in this collaborative process.

Earthquakes —Monitoring of seismicity in Idaho is conducted by several agencies including the USGS-Advanced National Seismic System (ANSS) – Intermountain West Network (i.e. ANSS-IMW), University of

Utah Seismograph Stations, and Montana Bureau of Mines and Geology. These agencies automatically transmit hypocenters and magnitude to the USGS-National Earthquake Information Center (NEIC) in Golden, CO. The data are published on the USGS website within several hours of an event. Users can arrange for automatic notification of Idaho earthquakes by cell phone texts and construct an updated Idaho earthquake catalog. The data range from about 1970 to several days ago. LIDAR data of the state is necessary to locate active fault traces accurately.

Landslides — IGS and USGS are developing a landslide inventory for Idaho. LIDAR is key to promoting an extensive and consistent landslide inventory. Landslides are being added into the geologic map database as new information is discovered.

Volcanoes —Individual geologic maps of Idaho published by the IGS and USGS show volcanoes, vents, and other volcanic landforms and features and are publicly available at the IGS website, http://www.idahogeology.org/.

Government Boundaries

This TWG was initiated in late 2010. The early focal points are supporting election consolidation with good tax code boundaries and shoring up the foundational boundary datasets: state and counties. Mutually agreed-upon borders with all adjoining states are essential to durable progress in the Cadastral Reference arena. The new representation of Idaho's boundary will result in a ripple of adjustments in coincident and dependent boundaries. Workgroups will soon form to develop approaches for each cluster of boundary types: ***General, Elections, Agency/Program, Special Service Districts*** and ***Tax Code Areas***. The TWG leads will meet quarterly. BLM and State Tax Commission are working closely to improve the spatial representation of the state boundary. Proposed changes in election consolidation law will permit county spending on spatial data, processes and training to effectively support elections.

Hydrography

Watersheds & Water Bodies—The Idaho Department of Water Resources is the Framework Steward for Hydrography. This past year, IDWR explored the relationships among Framework themes in Idaho and the challenges and procedures needed to integrate other Framework data with the high resolution National Hydrography Dataset (NHD). Additionally, IDWR has been involved in several NHD improvements, including developing custom tools for water managers to send NHD edits to IDWR; placing events of diversions along hydrographic features; and gathering data needs from Idaho agencies for linkage to the NHD. Currently, IDWR is developing an online NHD editing tool that does not require any GIS expertise or software, so that users can suggest changes in geometry or attributes. The application is currently in beta. This mature effort is due to a long-term funding commitment by USGS across the nation and to IDWR's vision and understanding of the uses and benefits.

Imagery

Digital Ortho Photo Quads (DOQQs) from the 2009 NAIP flight were delivered in February 2010. These were distributed to consortium partners in a variety of ways. Through collaborative decision-making, the partners agreed to invest in robust online services to be provided by INSIDE Idaho and Idaho State University's GIS Training and Research Center. Together they created and published a variety of Web services: Image Service using the uncompressed 4-band imagery files (TIFF) and two fused cache ArcGIS Server Map Services (one in natural color, one in color infrared). Idaho Department of Water Resources processed the uncompressed 4-band imagery files into 100k tiles and compressed to jp2 format. The vast majority of users access the imagery online rather than downloading and storing it locally. This was a significant goal of the consortium from the outset.

Idaho is a Tier 1 state for the 2011 NAIP flights. After polling the GIS community and 2009 NAIP partners, it was decided that no state partnership would be formed due to lack of funds and insufficient time to put the partnership together. USGS has offered to share the 2011 NAIP DOQQs for no cost. The current providers have agreed to provide similar access to 2011 imagery as they are doing for 2009.

The Imagery TWG meets the first Wednesday of the month at 10:00 am MT at the Idaho Water Center. All are welcome. Meeting topics for 2011 include presentations from various organizations regarding practical applications of imagery and the sharing and distribution of data. Additional details are available at the Imagery TWG website.

Land Use/Land Cover

In 2010, the Land Use/Land Cover technical workgroup (LULC TWG) was officially formed and began holding monthly meetings on the third Thursday at 10am –noon MT. About ten people are regulars; all are welcome. Thus far the TWG has finalized a working definition of ***land cover***, ***land use***, and ***land tenure***. The TWG has formed a relationship with the Parcels workgroup because the parcels data model includes land use coding. The efforts of other states in the region were polled and a draft land cover standard has been initiated based upon the Oregon standard. Jimmy Kagan, who led Oregon's land tenure (aka land stewardship) effort, is invited to speak to the TWG in early 2011.

Public Safety

Emergency Service Zones data exchange standard was established by ITRMC. It is the first Idaho Framework standard—a stunning achievement. This standard was widely vetted and has the support of the 911 community. Three cheers for Jimae Haynes, City of Boise, who led us into this brave new world.

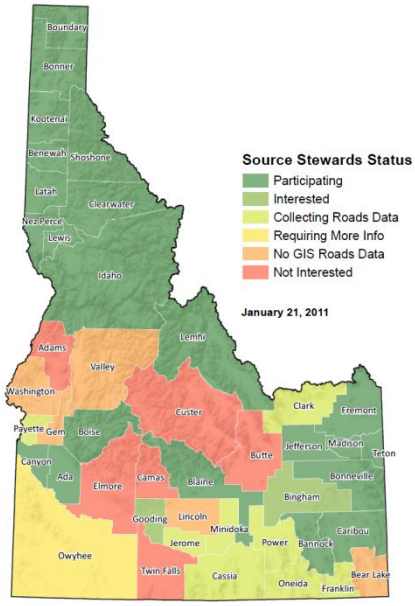
Another successful standards effort was initially led by Eric Smith (formerly of Fremont County) and later by Bill Reynolds, Nez Perce County. After wide vetting, including the 911 community, IGC Executive Committee recommended ITRMC establish the ***Structures and Landmarks*** DES in late 2010. A pilot

successfully demonstrated a technical approach to Structures stewardship based on previous work by INSIDE Idaho. One of the results is a type code crosswalk so that USGS and local governments have the building type information they need for their respective uses.

While Bureau of Homeland Security has committed to stewarding Structures, implementation has been delayed by organizational changes. In the meantime, the Idaho Geospatial Office is filling the gap. IGO is working with Source Stewards to facilitate adoption of the standard data model and help with metadata. Contact Paul Reyes, 332-1850, to get your local data incorporated. Idaho must have a statewide structures map to support NextGen 911.

Transportation

Roads—A collaborative process funded by NSDI CAP in 2010 resulted in a comprehensive Findings and Recommendations Report written by consultant and facilitator, Pete Croswell. A major finding is that without the leadership of a key state agency, such as ITD, chances of sustained success are unlikely. Despite the lack of a Framework Steward, stakeholders provided input for a data model, accuracies, uses and other essential information and opinions. Several years of modest USGS funding to develop partner relations and demonstrate technical viability are at an end. The successful pilot includes data from 22 counties and 2 tribes refreshed weekly and published through INSIDE Idaho. Due to lack of further funding, technology transfer to the Idaho Geospatial Office is in process. Until an appropriate Framework Steward is identified, IGO will bring in new partners and help existing partners adjust to a more robust data model. Contact Paul Reyes, 332-1850, to find out more.



TWG leadership has also changed. Dan Spinosa of Bonner County is now the Transportation TWG Chair. Dave Christianson, who performed Chair duties for many years, is now a member of the IGC Executive Committee; he will continue to participate on the TWG. A draft Road Centerline Data Exchange Standard is under development based on the Roads Framework Report. Wide vetting and the standards development process will be the main business in 2011.

Trails—In partnership with Idaho Parks & Recreation, a Trails planning application was developed and launched to help recreationists plan trips. Bob Smith, IGO, helped with the mapping functionality, and Jeff Cook was instrumental in gathering trails data from several federal and state agencies. This effort forms the nucleus of Trails Framework. Additional data and functionality are planned for 2011. Check it out at http://trails.idaho.gov/.

Reference

An index to 2009 imagery was created and made available. The majority of work in 2010 focused on creating a flexible mechanism to harvest and index metadata. There are a number of publishers exposing metadata to the crawler. In 2011 the metadata crawler, as well as other associated components, will continue to be enhanced. Learning about the ISO North American Profile and ways in which it is implemented in software will also be a priority. INSIDE Idaho revamped its Web site. Sharp!